

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016287**Date Inspected:** 15-Aug-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Shi Gang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY # 04

This QA Inspector performed Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled "Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld" after ZPMC welding personnel performed weld repairs of tacked areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panels examined are as follows:

13CW-DP3144-001: 24 tack weld locations found compliant and 0 tack weld locations found non-compliant.

13CW-DP3150-001: 11 tack weld locations found compliant and 0 tack weld locations found non-compliant.

13CW-DP3152-001: 04 tack weld locations found compliant and 0 tack weld locations found non-compliant.

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay # 09, Continuity Plate of U-rib

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## WELDING INSPECTION REPORT

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During random in process inspection this QA inspector observed that ZPMC NDT personnel Mr. Yuan Tao was performing Magnetic Particle Testing (MT) on the weld joints of continuity plate of U-rib of OBG deck plate. The members are identified as OBG components and the weld designations reviewed are as follows.

DP3167(PL3436A)-001-031, 046~049, 054~057, 062~065, 070~073, 078~081, 098~101, 106~109, 114~117, 122~125, 130~133

DP3167(PL3436A)-001-152~155, 160~167, 172~175, 180~183, 213~216, 221~224, 229~232, 237~240, 251~154, 259~262

DP3167(PL3436A)-001-267~270, 275~278, 294~297, 302~305, 310~313, 318~321

Bay # 09, 14W-DP3172-001

During random in process inspection this QA inspector observed that ZPMC personnel performing fit up of U-rib to deck plate of above mentioned deck panel. Welder is identified as 062305. ZPMC CWI is identified as Mr. Chen Shi Gang. The welding variables recorded by QC appeared to comply with WPS-B-T-2342-U5b(U-rib).

Bay # 09, 14W-DP3174-001

During random in process inspection this QA inspector observed that ZPMC personnel performing fit up of U-rib to deck plate of above mentioned deck panel. Welder is identified as 059472. ZPMC CWI is identified as Mr. Chen Shi Gang. The welding variables recorded by QC appeared to comply with WPS-B-T-2342-U5b(U-rib).

BAY 09, Continuity Plate of U-rib

FCAW welding of weld joint 252 located on DP3170-001.

Welder is identified as 059378. ZPMC CWI is identified as Mr. Chen Shi Gang.

The welding variables recorded by QC appeared to comply with WPS-B-T-2233-Tc-U4b-F.

FCAW welding of weld joint 192 located on DP3170-001.

Welder is identified as 201788. ZPMC CWI is identified as Mr. Chen Shi Gang.

The welding variables recorded by QC appeared to comply with WPS-B-T-2133.

FCAW welding of weld joint 133 located on DP3170-001.

Welder is identified as 059416. ZPMC CWI is identified as Mr. Chen Shi Gang.

The welding variables recorded by QC appeared to comply with WPS-B-T-2233-Tc-U4b-F.

FCAW welding of weld joint 108 located on DP3170-001.

Welder is identified as 059443. ZPMC CWI is identified as Mr. Chen Shi Gang.

The welding variables recorded by QC appeared to comply with WPS-B-T-2133.

FCAW welding of weld joint 051 located on DP3170-001.

Welder is identified as 059403. ZPMC CWI is identified as Mr. Chen Shi Gang.

The welding variables recorded by QC appeared to comply with WPS-B-T-2233-Tc-U4b-F.

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## WELDING INSPECTION REPORT

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Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Gaikwad,Umesh

Quality Assurance Inspector

**Reviewed By:** Carreon,Albert

QA Reviewer

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